# Navajo Abandoned Uranium Mine

# **Site Screen Report**

This form is for use at the site of abandoned uranium mines (AUM) located on Navajo Nation lands. Applicable sites include all mine and mine features that have or have not undergone reclamation by the Navajo Abandoned Mine Lands Reclamation Program, including features, adits, pits and waste piles. Applicable sites also include all AUM sites listed in the USEPA CERCLIS database, all sites listed in the 2008 AUM GIS Report issued by USACOE and USEPA, all AUM sites on allotment lands associated with the Navajo Nation, and any and all AUM sites not listed in any database located on Navajo lands. Reconnaissance of any sites located on lands adjacent to Navajo lands that may be impacting Navajo lands will need to be coordinated with the authorities appropriate to those lands.

The purpose of the form is to ascertain the status and location of the identified AUM site, and record all immediate site information associated with the mine site. Decisions and recommendations on what additional steps are needed will be provided on a separate document.

# Charles Huskon No. 26 AUM Site

Navajo AUM Western Region

Prepared by:

Weston Solutions, Inc.

Contract: W91238-06-F-0083

12767.063.599.1111

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Part I	Site Identification, Location and Status					
Site Names and ID numbers as applicable						
Mine ID:	523					
Map ID:	W88					
CERCLIS:	NNN000909112					
Navajo Aban	doned Mine L	and Reclamat	ion Program: NA	A-0166		
Local name /	Aliases: Charle	es Huskon #26	; Huskon #26; Hus	kon No. 26		
Chapter and	local area: Ca	meron Chapter				
County: Coco	onino	State: Arizon	na			
Lat/Long: 35	5.7592333682 I	N / -111.325192	2581 W			
Nearby road	and highway:	Highway 89	<b>Local Post Office</b>	e: Cameror	ı, AZ	
Surface Land Status: check one or more and provide ownership and contact information below						
Tribal Trust I Private Bureau of La State			Public lands Tribal Fee Land Allotment Fee land			
Subsurface Mineral Rights:						
No informatio	n on subsurfac	e mineral rights	s ownership was fo	und in the I	EPA/AUM Database.	
Claim and op	erator inform	ation:				
The mine site surface land status is classified as Tribal Trust Land. Historical documents showed the operator of the mine as the Rare Metals Corporation in 1957. No additional ownership / lease information was identified in the EPA/AUM database.						
Number of residential structures within 200 feet of mine: None						

Estimated volume of mine waste onsite: None

#### Part II Summary of radiological readings

#### **Highest gamma radiation measurement:**

473,325 counts per minute (cpm)

#### **Describe any other radiological measurements:**

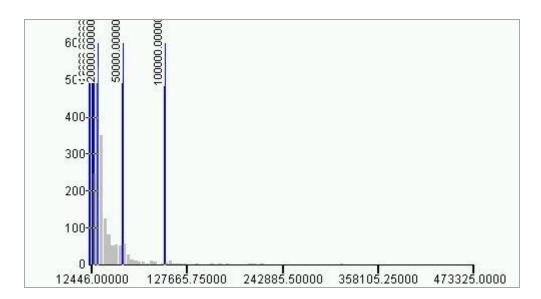
A total of 1,711 gamma radiation measurements were collected from the mine site, ranging from 12,446 cpm to 473,325 cpm. The measurements collected at the reclamation area were found at a maximum level of approximately 40,000 cpm, below the cliffs at a maximum level of approximately 70,000 cpm, and at a hot spot along the cliff face at a maximum level of approximately 475,000 cpm. The measurements are represented in Figures 1 and 2.

**Background Readings:** 17,102 cpm

**Background Average:** 17,102 cpm

#### **Distribution Chart and Statistics:**

The following chart and statistics were generated by ESRI ArcGIS 9.3.1, and show the general distribution of the site gamma radiation measurements. The horizontal X axis represents the gamma radiation reading levels in cpm (lowest levels to the left). The vertical Y axis represents the frequency of each gamma radiation level.



Count:	1711
Minimum:	12446.00000
Maximum:	473325.00000
Sum:	58480160.00000
Mean:	34178.93629
Median:	22239.00000
Standard Deviation:	42461.53181

#### Part III Status of Reclamation and Mine Waste

The following information was obtained from the Navajo Abandoned Mine Land Reclamation Program (NAMLRP) Point Features Database:

NAMLRP Status of the mine site: Reclaimed: Partially Waste Pile onsite: No

**NAMLRP Project Number:** NA-0166

**NAMLRP Mine features:** 1 Rim Strip / Pit

The following information was obtained from field observations collected during the 2010 site screening:

Provide description and status of all mine sites and features at site. Include all waste piles, adits, pits and other features, and indicate whether they are open, closed, covered, capped, buried or unreclaimed. Indicate approximate size, shape and extent, including description of any reclamation caps. Note condition of all caps.

Observed reclamation work and status:
Adits None
Waste Piles None
Pits None

# Shafts

None

#### **Other Debris and Mine Features**

Many 2" black vent/drill holes throughout site; Majority of S end site appeared to be reclamation cap/furrows

#### Part IV

#### **Site observations and Environs**

Observed Structures: list number of and describe human habitation status of structures at the following distances from mine:

**0 to 200 feet:** None

200 feet to 0.25 mile: None

Observed Public or commercial structure: list and describe all schools, clinics, Chapter Houses, places of business and any other structure used by members of the community at the following distances:

**0 to 200 feet:** None

200 feet to 0.25 mile: None

Levels measured around the perimeter(s) of the identified structure(s):

None

Observed water sources: list the number and type of wells and surface water sources that are potentially used for human consumption at the following distances from the mine:

**0 to 0.25 miles:** Little Colorado River Basin approximately 0.25 mi E of the site

**0.25 miles to 4 miles:** None

Sensitive environments: note and describe all sensitive environments located within visible range of the mine site, including: wetlands, endangered species, habitats and approximate locations of sites that may be under protection of the government of the Navajo Nation.

Little Colorado River Basin approximately 0.25 mi E of the site, possible wetlands

Known Site History: include information from interviews with Chapter officials and residents. Note information on mine ownership, type of mining operation, period of operation, known amount of production, and any other information as provided.

Charles Huskon No. 26 mine consists of an area of 31,923.96 m<sup>2</sup>. The mine was identified as being operational in 1957. Historical documents showed the operator of the mine as the Rare Metals Corporation in 1957. While operational, the mine had a total production volume of 18 tons. No other historical information or any additional ownership / lease information was identified in the EPA/AUM database.

## Part V Response Action Summary

#### **Summary of Evaluation Factors:**

#### Accessibility:

Was the mine easily accessible to potential human activity? Yes

#### Radiological Measurements:

Were any gamma radiation measurements collected at the mine greater than two times the site-specific background levels?

Yes

#### Waste Piles:

Were any unreclaimed waste piles observed at the mine with gamma radiation measurements greater than two times the site-specific background levels? No

#### Structures:

Were any structures observed within 200 feet of the mine?

No

### Potential Drinking Water Sources:

Were any potential drinking water sources observed within 4 miles of the mine? Yes

#### Reclamation:

Was the mine reported to be previously reclaimed, or did the mine appear to be reclaimed?

Yes (south end of site appeared to be reclaimed)

## Part VI Photos



Photo 1. Charles Huskon No. 26 mine site



Photo 2. Charles Huskon No. 26 mine site, reclamation area



Photo 3. Charles Huskon No. 26 mine site, alongside Little Colorado River Basin



Photo 4. Charles Huskon No. 26 mine site, protruding casing



Photo 5. Charles Huskon No. 26 mine site, drill holes

# Part VII **Contacts Reports and Information** Name: Stanley Edison (928) 871-6861 Eugene Esplain (928) 871-7331 Title or official role (if any) Navajo EPA Superfund Program Address\_\_\_PO Box 2946, Window Rock, AZ 86515 Information provided Lead Regulatory Agency Title or official role (if any) Address Telephone number\_\_\_\_\_ Information provided\_\_\_\_\_ Title or official role (if any) Telephone number\_\_\_\_\_ Information provided\_\_\_\_\_ Name Title or official role (if any)

Telephone number

Information provided\_\_\_\_\_

Figure 1 - Gamma Radiation Measurements, Above Two Times Background Charles Huskon No. 26 (523) Cameron Chapter, Navajo Nation

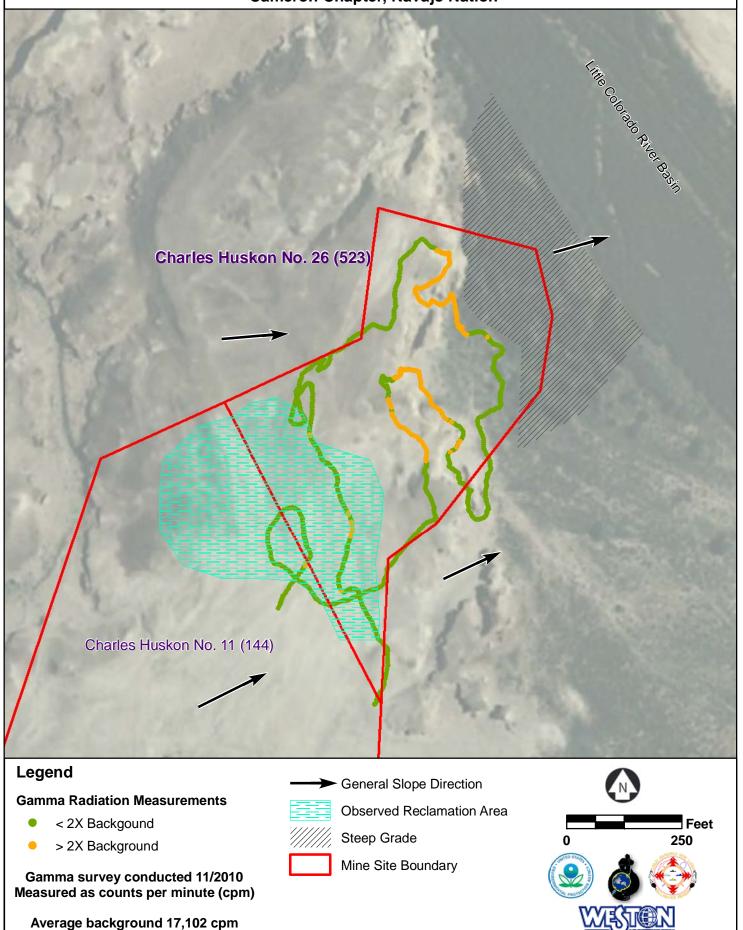
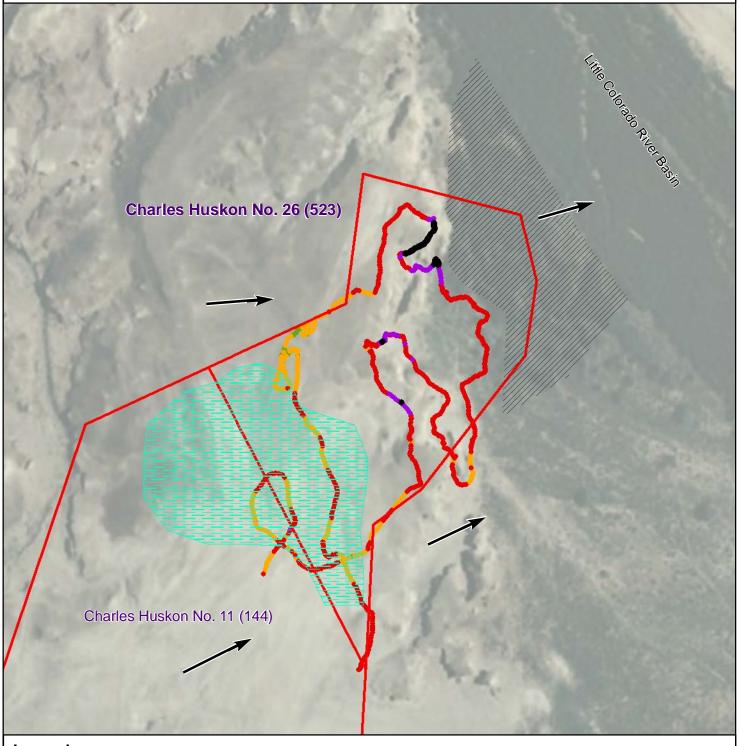


Figure 2 - Gamma Radiation Measurements Charles Huskon No. 26 (523) Cameron Chapter, Navajo Nation



#### Legend

#### **Gamma Radiation Measurements**

- 0 10,000
- 10,000 15,000
- 15,000 20,000
- 20,000 50,000
- 50,000 100,000
- > 100,000



Gamma survey conducted 11/2010 Measured as counts per minute (cpm)

Average background 17,102 cpm

